

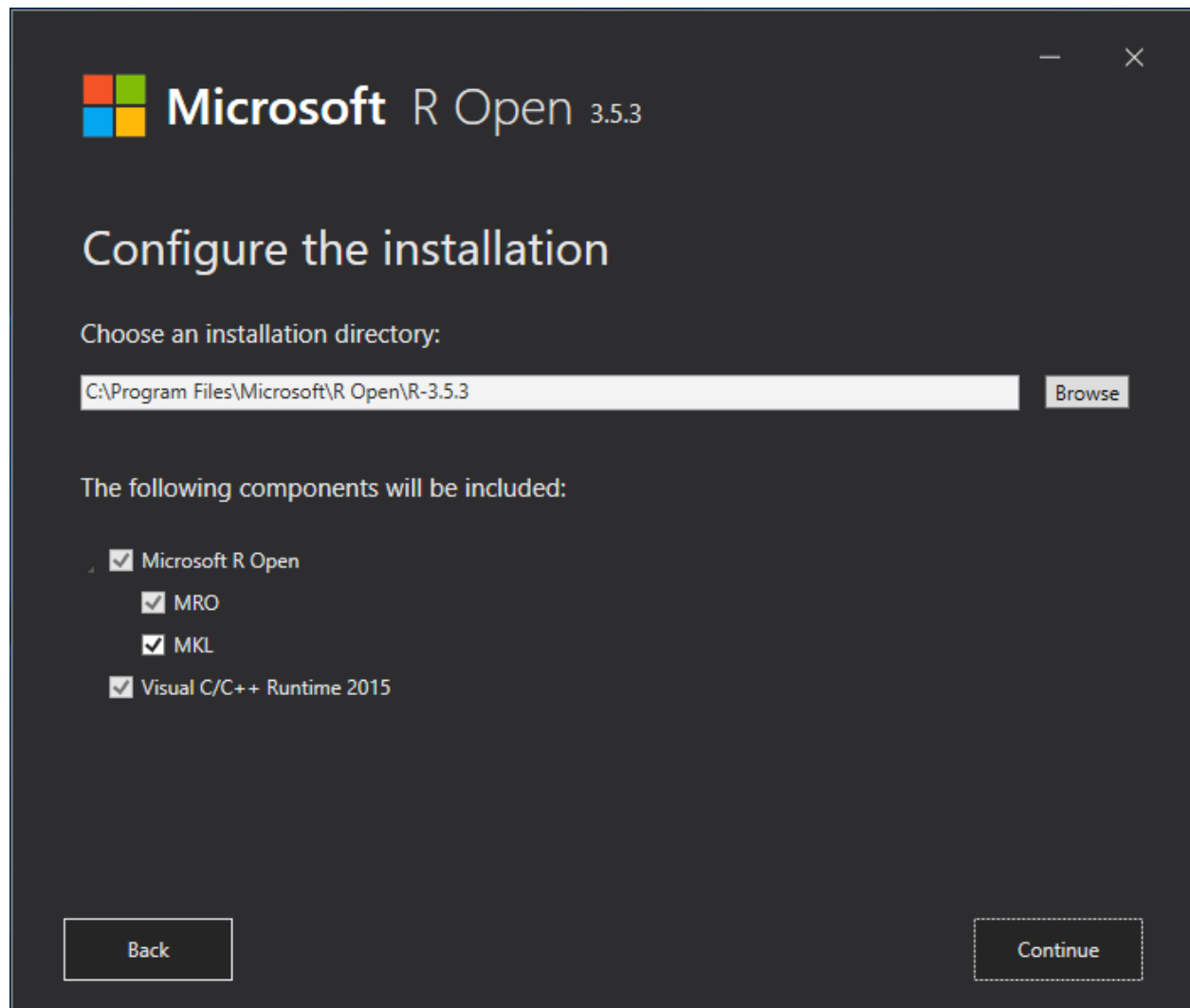
## Installing R and RStudio

When working with R, we will be required to install two essential software; R and RStudio.

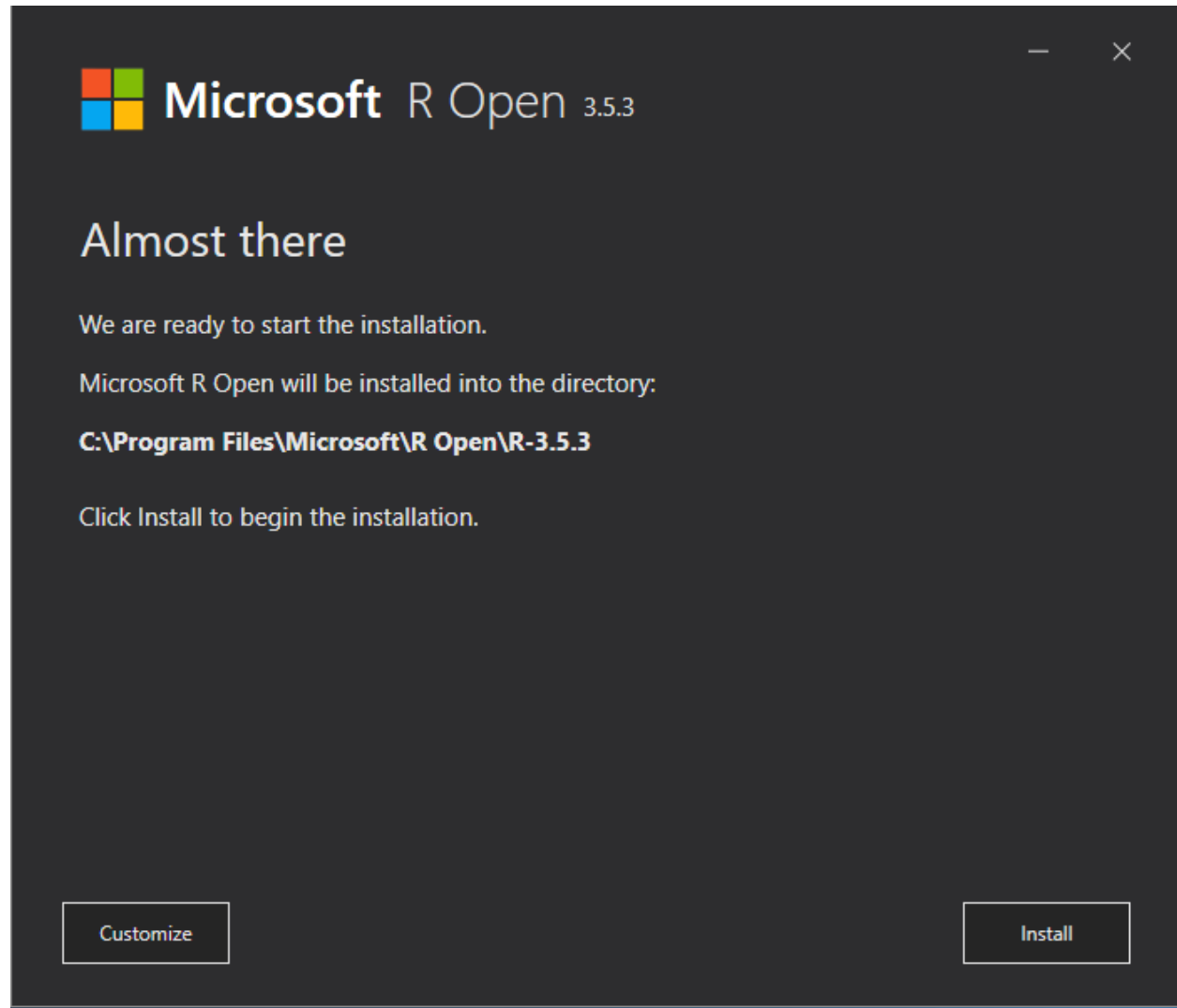
**R** - is the software environment that comes with a graphical user interface.

**RStudio** - is an Integrated Development Environment (IDE) that makes R easier to use. It includes a code editor, debugging and visualization tools.

### Installation of R and RStudio on Windows



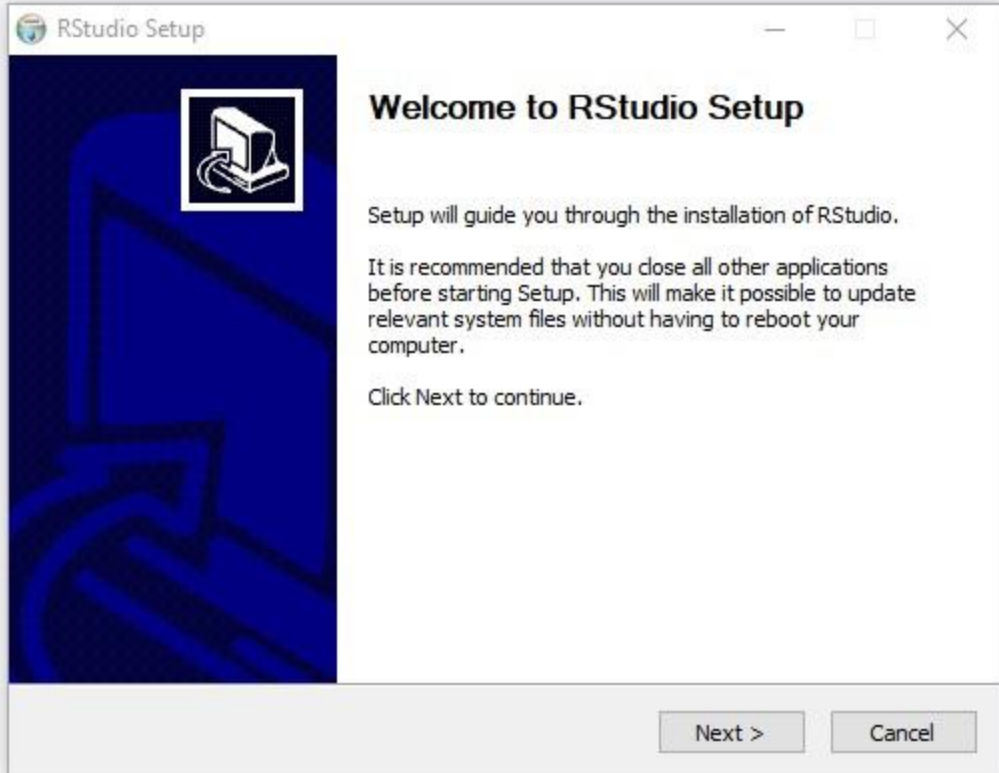
- Download the R installer from [Microsoft R Open \(MRO\) Downloads](#) and then run the installer. Once the installer runs click 'continue' when necessary and don't forget to mark the MKL option. Math Kernel Library (MKL) is a numerical library that increases the speed of some operations.
  - Here are some screenshot of the installation process

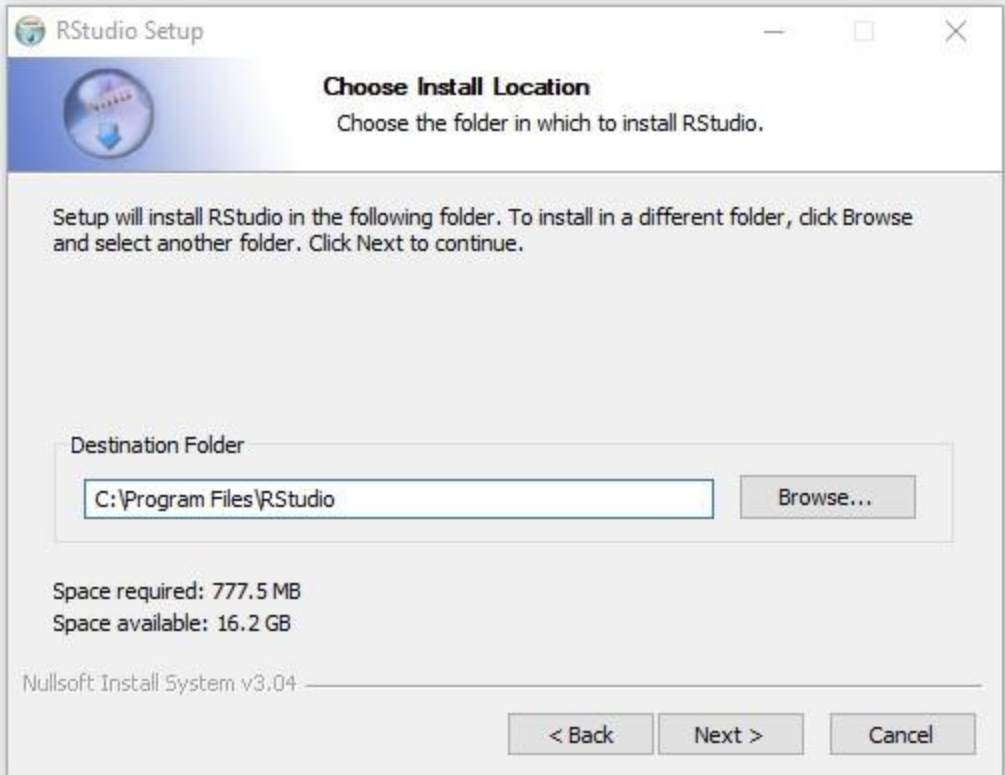


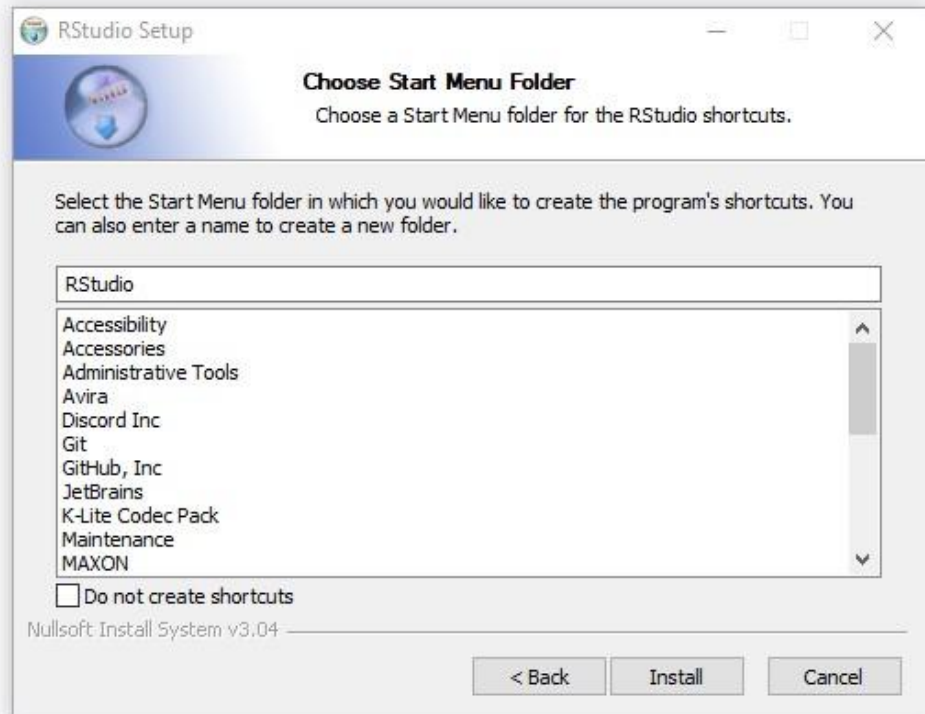
- **Installing RStudio on windows**

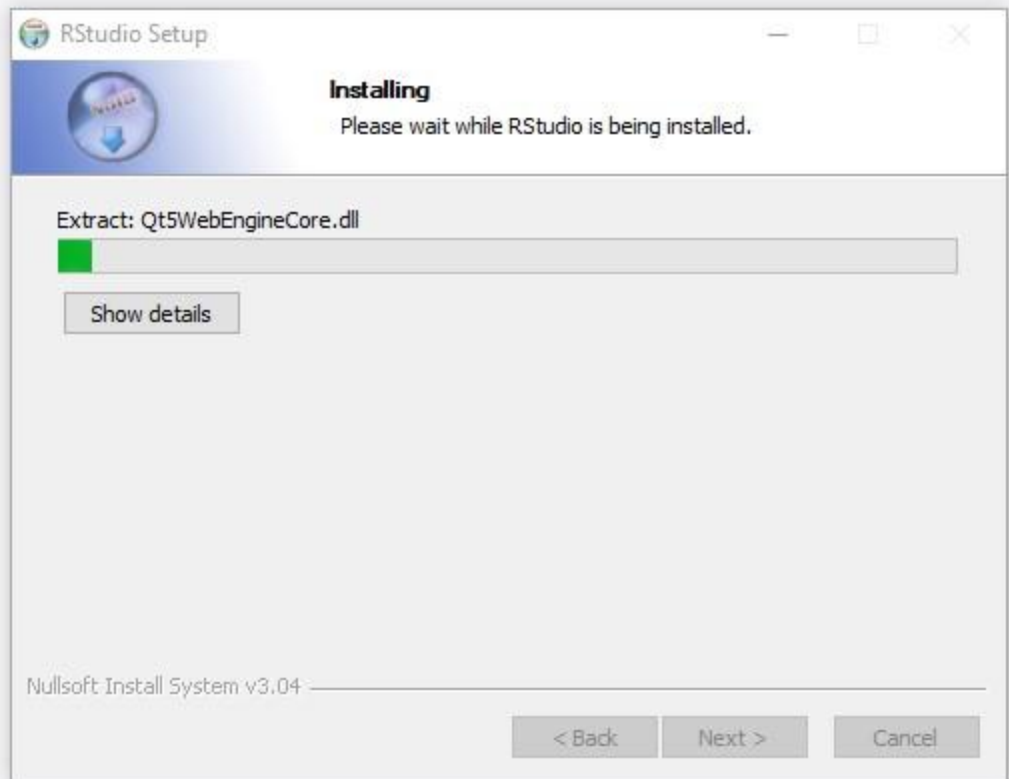
Visit [RStudio Downloads](#) and download the windows version. The process should be similar installing R.

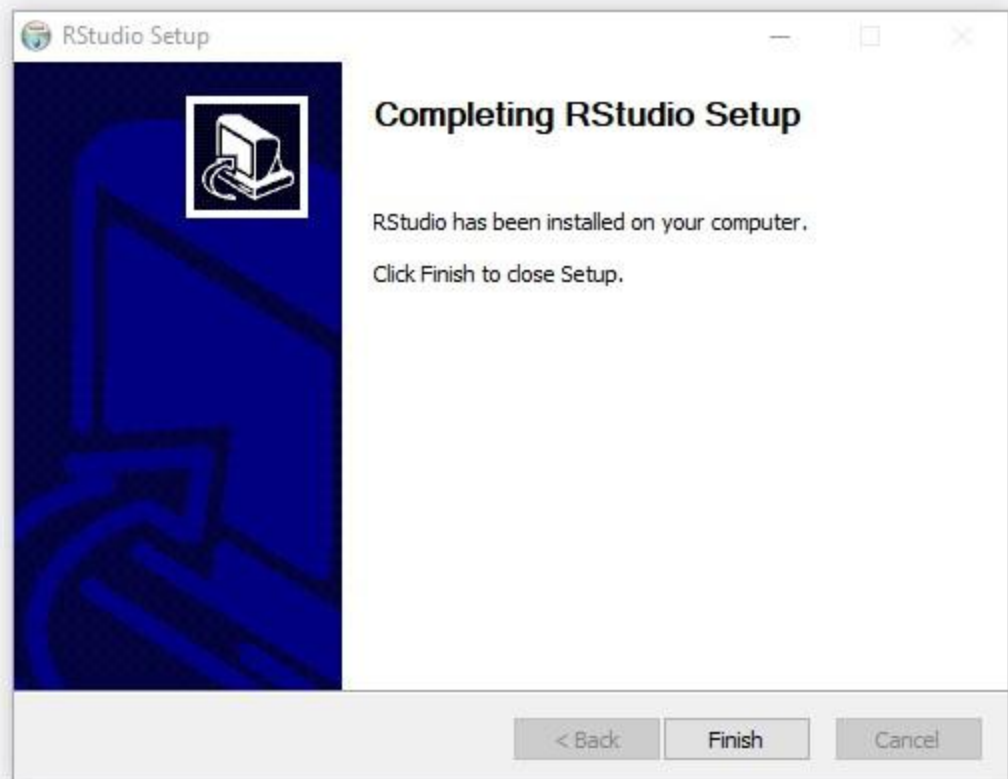
- Here are some screenshots of the process











### Installing R and RStudio on Ubuntu Linux

We are going to install R with OpenBlas. OpenBlas is an optimized Basic Linear Algebra Subprogram which will help boost some operations. It will be useful when working with large datasets.

#### ❖ Installing R

Open the terminal and enter the following code

```
sudo apt-get install libopenblas-base r-base
```

#### ❖ Installing RStudio

Still in the terminal, enter the following code

```
sudo apt-get install libopenblas-base r-base  
cd ~/Downloads  
sudo apt-get install libopenblas-base r-base
```

## Installing R and RStudio on Mac

The quickest and easiest way to install R on Mac OS is by using Homebrew. But first, we are going to install the XCode Command Line tool, which we will use in compiling R software.

So open the terminal and enter the following command to install XCode:

```
xcode-select --install
```

- **Installing Homebrew**

Enter the following command in the terminal

```
/usr/bin/ruby -e "$(curl -fsSL  
https://raw.githubusercontent.com/Homebrew/install/master/install)"
```

Next, we want to configure the Homebrew path. This is important because we want to tell the system where Homebrew can be found.

Enter the following command to achieve this.

```
echo "export LC_ALL=en_US.UTF-8" >> ~/.bash_profile  
echo "export LANG=en_US.UTF-8" >> ~/.bash_profile  
echo "export PATH=/usr/local/bin:$PATH" >> ~/.bash_profile && source ~/.bash_profile
```

- **Installing R with OpenBLAS**

Enter the following commands in terminal

```
brew install openblas  
brew install r --with-openblas  
echo 'Sys.setlocale(category="LC_ALL", locale = "en_US.UTF-8")' >> ~/.bash_profile
```

- **Installing RStudio**

Finally, enter the following command in the terminal to install Rstudio

```
brew cask install rstudio
```